

Appl. No. 10/627,615  
Amdt. Dated April 4, 2005

**Amendments to the Specification:**

Please replace paragraph [0011] with the following amended paragraph:

[0011] The present invention relates to a sensor array for an intrusion detection system. According to the present invention, the sensor array includes one or more sensor nodes that are each connected to an array processor. Each sensor node includes one or more discrete sensors, which are classified as volumetric sensors or non-volumetric sensors. The discrete volumetric sensors each have an associated volumetric intrusion detection field extending therefrom and are constructed and arranged to generate a response to an intruder entering its detection field. Each sensor node in the sensor array has a detection zone defined by the effective detection fields of its constituent sensors as constructed and arranged in each sensor node. The array processor is coupled to each sensor node for generating information based on processing of the response generated from the detection zone of each sensor node. ~~These sensor nodes detect the presence of an intruder in a detection zone extending in a plane transverse to each sensor node.~~ Whenever an intruder enters the detection zone of a sensor node, one or more of the discrete sensors of the sensor node generates a response representative of the presence of an intruder. An array processor receives the response in the form of a response signal. The array processor signal processes the response received from each discrete sensor and generates an alarm disturbance signature.

Please replace paragraph [0018] with the following amended paragraph:

[0018] ~~In a first aspect the present invention provides a sensor array forming part of an intrusion detection system comprising: a sensor array forming part of an intrusion detection system, the sensor array comprising: at least one sensor node, each sensor node having a longitudinal axis and providing a detection zone defined by a plane extending~~

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~~transverse to the longitudinal axis, and having at least one discrete sensor for generating a response to an intruder entering the detection zone of the sensor node; and an array processor for generating information based on processing of each response, the array processor being coupled to each of the sensor nodes.~~ sensor array forming part of an intrusion detection system and having a plurality of discrete volumetric sensors each having an associated volumetric intrusion detection field extending therefrom and constructed and arranged to generate a response to an intruder entering its detection field, the sensor array comprising: a plurality of sensor nodes each having at least one volumetric sensor and having a detection zone defined by the effective detection fields of its constituent sensors as constructed and arranged in each sensor node, at least one of the sensor nodes having at least two volumetric sensors; and an array processor coupled to each sensor node for generating information based on processing of the response generated from the detection zone of each sensor node.

Please replace paragraph [0019] with the following amended paragraph:

[0019] In a second aspect the present invention provides a sensor array forming part of an intrusion detection system comprising: at least one sensor node, each sensor node having a longitudinal axis and providing a detection zone defined by a plane extending transverse to the longitudinal axis of the sensor array, and having: at least one discrete sensor for generating a response to an intruder entering the detection zone of the sensor node; and a node processor for generating an alarm disturbance signature based on the response generated by the sensor node, the node processor being coupled to each discrete sensor; and an array processor for generating information based on the alarm disturbance signature received from each node processor, the array processor being coupled to the node processor of each sensor node. sensor array forming part of an intrusion detection system and having a plurality of discrete volumetric sensors each having an associated volumetric intrusion detection field extending therefrom and constructed and arranged to

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generate a response to an intruder entering its detection field, the sensor array comprising: (i) a plurality of sensor nodes each sensor node having at least one volumetric sensor and having a detection zone defined by the effective detection fields of its constituent sensors as constructed and arranged in each sensor node, at least one of the sensor nodes having at least two volumetric sensors, and each sensor node having a node processor for generating an alarm disturbance signature based on the response generated by each volumetric sensor of the sensor node, the node processor being coupled to each volumetric sensor; and (ii) an array processor for generating information based on the alarm disturbance signature received from each node processor, the array processor being coupled to the node processor of each sensor node.

Please replace paragraph [0020] with the following amended paragraph:

[0020] In a third aspect, the present invention provides an intrusion detection system comprising: at least one sensor array having at least one sensor node, each sensor node having a longitudinal axis and providing a detection zone defined by a plane extending transverse to the longitudinal axis, and having at least one discrete sensor for generating a response to an intruder entering the detection zone of the sensor node; and a node processor for generating alarm disturbance signature based on the response received from each discrete sensor, the node processor being coupled to each discrete sensor, and an array processor for generating information based on the alarm disturbance signature received from each node processor, the array processor being coupled to the node processor of each sensor node; a calibration means for adjusting the sensitivity setting of each discrete sensor; and a system processor for processing the information received from the array processor and for generating an alarm condition; wherein the calibrating means is coupled to the system processor, and wherein the system processor is coupled to each sensor array. intrusion detection system comprising: (I) at least one sensor array having a plurality of discrete volumetric sensors each having an associated volumetric intrusion

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detection field extending therefrom and constructed and arranged to generate a response to an intruder entering its detection field, the system having: (i) a plurality of sensor nodes each sensor node having at least one volumetric sensor and having a detection zone defined by the effective detection fields of its constituent sensors as constructed and arranged in each sensor node, at least one of the sensor nodes having at least two volumetric sensors, and each sensor node having a node processor for generating an alarm disturbance signature based on the response generated each volumetric sensor of the sensor node, the node processor being coupled to each volumetric sensor; and (ii) an array processor for generating information based on the alarm disturbance signature received from each node processor, the array processor being coupled to the node processor of each sensor node; (III) a calibration means for adjusting the sensitivity setting of each discrete sensor; and (III) a system processor for processing the information received from the array processor and for generating an alarm condition; wherein the calibrating system is coupled to the system controller, and wherein the system controller is coupled to each sensor array.